

MAIN WORKSHEET - BUILD ALTERNATIVE							(Rev.12, July 31, 2009)	
Connecticut Department of Transportation							Today's Date	8/4/09
New Britain - Hartford Busway, Connecticut							Yr of Base Year \$	2009
Final Design							Yr of Revenue Ops	2013
	Quantity	Base Year Dollars w/o Contingency (X000)	Base Year Dollars Allocated Contingency (X000)	Base Year Dollars TOTAL (X000)	Base Year Dollars Unit Cost (X000)	Base Year Dollars Percentage of Construction Cost	Base Year Dollars Percentage of Total Project Cost	YOE Dollars Total (X000)
10 GUIDEWAY & TRACK ELEMENTS (route miles)	9.40	150,568	13,369	163,938	\$ 17,440	51%	31%	183,886
10.01 Guideway: At-grade exclusive right-of-way				0				0
10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)	8.27	53,164	4,694	57,858	\$ 6,996			64,898
10.03 Guideway: At-grade in mixed traffic				0				0
10.04 Guideway: Aerial structure	0.33	77,322	6,868	84,190	\$ 255,122			94,435
10.05 Guideway: Built-up fill				0				0
10.06 Guideway: Underground cut & cover				0				0
10.07 Guideway: Underground tunnel				0				0
10.08 Guideway: Retained cut or fill	0.80	16,543	1,489	18,032	\$ 22,540			20,226
10.09 Track: Direct fixation				0				0
10.10 Track: Embedded				0				0
10.11 Track: Ballasted		3,187	287	3,474				3,896
10.12 Track: Special (switches, turnouts)		352	32	384				430
10.13 Track: Vibration and noise dampening				0				0
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	11	12,192	1,097	13,289	\$ 1,208	4%	3%	15,057
20.01 At-grade station, stop, shelter, mall, terminal, platform	11	12,067	1,086	13,153	\$ 1,196			14,902
20.02 Aerial station, stop, shelter, mall, terminal, platform				0				0
20.03 Underground station, stop, shelter, mall, terminal, platform				0				0
20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		125	11	136				154
20.05 Joint development				0				0
20.06 Automobile parking multi-story structure				0				0
20.07 Elevators, escalators				0				0
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	9.40	0	0	0	\$ -	0%	0%	0
30.01 Administration Building: Office, sales, storage, revenue counting				0				#DIV/0!
30.02 Light Maintenance Facility				0				#DIV/0!
30.03 Heavy Maintenance Facility				0				#DIV/0!
30.04 Storage or Maintenance of Way Building				0				#DIV/0!
30.05 Yard and Yard Track				0				#DIV/0!
40 SITEWORK & SPECIAL CONDITIONS	9.40	114,929	10,114	125,043	\$ 13,302	39%	24%	138,433
40.01 Demolition, Clearing, Earthwork		1,468	134	1,601				1,772
40.02 Site Utilities, Utility Relocation		26,111	2,136	28,247				31,272
40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		13,340	1,184	14,524				16,079
40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks		5,060	455	5,515				6,106
40.05 Site structures including retaining walls, sound walls		22,929	2,064	24,993				27,669
40.06 Pedestrian / bike access and accommodation, landscaping		20,590	1,853	22,443				24,847
40.07 Automobile, bus, van accessways including roads, parking lots		482	43	526				582
40.08 Temporary Facilities and other indirect costs during construction		24,949	2,245	27,194				30,106
50 SYSTEMS	9.40	15,582	1,402	16,984	\$ 1,807	5%	3%	18,941
50.01 Train control and signals		4,396	396	4,792				5,344
50.02 Traffic signals and crossing protection		2,941	265	3,205				3,574
50.03 Traction power supply: substations		0	0	0				0
50.04 Traction power distribution: catenary and third rail		0	0	0				0
50.05 Communications		8,245	742	8,987				10,022
50.06 Fare collection system and equipment		0	0	0				0
50.07 Central Control		0	0	0				0
Construction Subtotal (10 - 50)	9.40	293,271	25,983	319,254	\$ 33,963	100%	61%	356,317
60 ROW, LAND, EXISTING IMPROVEMENTS	9.40	44,374	44	44,418	\$ 4,725		8%	44,486
60.01 Purchase or lease of real estate		43,749	0	43,749				43,816
60.02 Relocation of existing households and businesses		625	44	669				670
70 VEHICLES (number)	31	18,568	1,331	19,899	\$ 642		4%	21,523
70.01 Light Rail				0				0
70.02 Heavy Rail				0				0
70.03 Commuter Rail				0				0
70.04 Bus	31	18,568	1,331	19,899	\$ 642			21,523
70.05 Other				0				0
70.06 Non-revenue vehicles				0				0
70.07 Spare parts				0				0
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	9.40	104,285	5,199	109,484	\$ 11,647	34%	21%	114,092
80.01 Preliminary Engineering		2,340	0	2,340				2,438
80.02 Final Design		52,752	1,813	54,565				56,861
80.03 Project Management for Design and Construction		5,628	384	6,012				6,265
80.04 Construction Administration & Management		38,177	2,635	40,812				42,530
80.05 Professional Liability and other Non-Construction Insurance		5,388	368	5,756				5,998
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.		0	0	0				0
80.07 Surveys, Testing, Investigation, Inspection		0	0	0				0
80.08 Start up		0	0	0				0
Subtotal (10 - 80)	9.40	460,498	32,556	493,054	\$ 52,453		94%	536,417
90 UNALLOCATED CONTINGENCY				22,311			4%	24,235
Subtotal (10 - 90)	9.40			515,365	\$ 54,826		98%	560,653
100 FINANCE CHARGES				10,813			2%	12,038
Total Project Cost (10 - 100)	9.40			526,178	\$ 55,976		100%	572,690
Allocated Contingency as % of Base Yr Dollars w/o Contingency				7.07%				
Unallocated Contingency as % of Base Yr Dollars w/o Contingency				4.84%				
Total Contingency as % of Base Yr Dollars w/o Contingency				11.91%				
Unallocated Contingency as % of Subtotal (10 - 80)				4.53%				
YOE Construction Cost per Mile (X000)								\$37,906
YOE Total Project Cost per Mile Not Including Vehicles (X000)								\$58,635
YOE Total Project Cost per Mile (X000)								\$60,925

INFLATION WORKSHEET

(Rev.12, July 31, 2009)

Connecticut Department of Transportation

Today's Date 8/4/09

New Britain - Hartford Busway, Connecticut

Yr of Base Year \$ 2009

Final Design

Yr of Revenue Ops 2013

Line 20 source Data: BLS Statistics Table 5. State and local government workers, by major occupational group: employer costs per hours worked for employee compensation and costs as a percentage of total compensation, 2004-2009--Management, professional, and related occupations

BASE YEAR DOLLARS (\$X\$000)	Base Yr Dollars	Double-Check Total	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
10 GUIDEWAY & TRACK ELEMENTS (route miles)	163,938	163,938	0	0	0	0	0	0	0	0	0	0	0	0	29,199	118,242	16,497	0	0	0	0	0	0	0	0	0	0	0
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	13,289	13,289	0	0	0	0	0	0	0	0	0	0	0	357	10,185	2,747	0	0	0	0	0	0	0	0	0	0	0	0
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 SITEWORK & SPECIAL CONDITIONS	125,043	125,043	0	0	0	0	0	0	0	0	0	0	0	751	67,662	39,573	17,058	0	0	0	0	0	0	0	0	0	0	0
50 SYSTEMS	16,984	16,984	0	0	0	0	0	0	0	0	0	0	0	0	5,499	9,845	1,641	0	0	0	0	0	0	0	0	0	0	0
60 ROW, LAND, EXISTING IMPROVEMENTS	44,418	44,418	0	0	0	0	0	0	0	8,158	7,710	14,318	14,233	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 VEHICLES (number)	19,899	19,899	0	0	0	0	0	0	0	0	0	0	0	0	19,899	0	0	0	0	0	0	0	0	0	0	0	0	0
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	109,484	109,484	0	0	614	2,683	2,605	3,351	5,278	349	9,068	19,452	15,154	20,382	19,387	11,164	0	0	0	0	0	0	0	0	0	0	0	0
90 UNALLOCATED CONTINGENCY	22,311	22,311	0	0	0	0	0	0	0	0	0	0	3,877	4,541	4,631	4,631	0	0	0	0	0	0	0	0	0	0	0	0
100 FINANCE CHARGES	10,813	10,813	0	0	4	17	38	62	95	149	261	499	808	1,591	3,125	4,166	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Cost (10 - 100)	526,178	526,180	0	0	618	2,700	2,643	3,412	5,371	8,656	17,039	38,146	35,486	149,220	204,986	57,903	0	0	0	0	0	0	0	0	0	0	0	0

Inflation Rate	0.03000	0.03000	0.03000	0.03000	0.03670	0.03950	0.04770	-0.01420	0.04030	0.04000	0.04000	0.04000	0.04000	0.04000	0.04000	0.04000	0.04000	0.04000	0.04000	0.04000	0.04000	0.04000	0.04000	0.04000	0.04000	0.04000	0.04000
Compounded Inflation Factor	1.30320	1.26524	1.22839	1.19261	1.15788	1.11689	1.07445	1.02553	1.04030	1.00000	1.04000	1.08160	1.12486	1.16986	1.21665	1.26532	1.31593	1.36857	1.42331	1.48024	1.53945	1.60103	1.66507	1.73168	1.80094	1.87298	
YEAR OF EXPENDITURE DOLLARS (\$X\$000)	YOY Dollars	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
10 GUIDEWAY & TRACK ELEMENTS (route miles)	183,886	0	0	0	0	0	0	0	0	0	0	0	31,582	133,006	19,299	0	0	0	0	0	0	0	0	0	0	0	0
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	15,057	0	0	0	0	0	0	0	0	0	0	0	387	11,486	3,214	0	0	0	0	0	0	0	0	0	0	0	0
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 SITEWORK & SPECIAL CONDITIONS	138,433	0	0	0	0	0	0	0	0	0	0	0	781	73,183	44,514	19,955	0	0	0	0	0	0	0	0	0	0	0
50 SYSTEMS	18,941	0	0	0	0	0	0	0	0	0	0	0	0	5,948	11,074	1,919	0	0	0	0	0	0	0	0	0	0	0
60 ROW, LAND, EXISTING IMPROVEMENTS	44,486	0	0	0	0	0	0	0	7,955	7,411	14,318	14,802	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 VEHICLES (number)	21,523	0	0	0	0	0	0	0	0	0	0	0	0	21,523	0	0	0	0	0	0	0	0	0	0	0	0	0
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	114,092	0	0	500	2,250	2,250	3,000	4,910	340	8,717	19,452	15,760	22,045	21,807	13,060	0	0	0	0	0	0	0	0	0	0	0	0
90 UNALLOCATED CONTINGENCY	24,235	0	0	0	0	0	0	0	89	0	0	3,877	4,723	5,009	5,209	5,418	0	0	0	0	0	0	0	0	0	0	0
100 FINANCE CHARGES	12,038	0	0	3	14	33	55	89	146	251	499	840	1,721	3,515	4,873	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Cost (10 - 100)	572,690	0	0	503	2,264	2,283	3,055	4,999	8,441	16,379	38,146	36,905	161,396	230,581	67,738	0	0	0	0	0	0	0	0	0	0	0	0